09/186,276 SBARCH TRANSCRIPT -DON'T REMOVE—

Connecting via Winsock to STN

Enter x:x Welcome to STN International!

LOGINID: ssspta1623zct

TERMINAL (ENTER 1, 2, 3, OR ?):2

Polymer searching in REGISTRY enhanced Indexing from 1947 to 1956 being added to records in CA/CAPLUS New current-awareness alert (SDI) frequency in BEILSTEIN adds new search fields
Nutraceuticals International (NUTRACEUT) now available on STN
NEXIST has been renamed APOLLIT
MORE calculated properties added to REGISTRY Supporter information for ENCOMPPAT and ENCOMPLIT updated CHEMENAT Will be removed from STN
SIBMIRENCY WILL be removed from STN
SIBMIRENCY BEACH And right truncation added to WSCA
RAPRA enhanced with new search field, simultaneous left and PCTGEN now available on STN
TEWA now available on STN
NTIS now allows simultaneous left and right truncation
NTIS now contains images
SDT PACKAGE for monthly delivery of multifile SDI results
EVENTLINE will be removed from STN PCTFULL now covers WP/PCT Applications from 1978 to date VXCENTER enhanced with additional content Addis Clinical Trials Insight now available on STN Simultaneous left and right truncation added to COMPENDEX. PATDPAFULL now available on STN
dditional information for trade-named substances without
structures available in RESISTRY
Display formats in DGENE enhanced ADISCLOSURE now available on STN parmacokinetic information and systematic chemical names "Ask CAS" for self-help around the clock New e-mail delivery for search results now available PHARMAMAIRELETTET (PHARMAML) - new on STN Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN Page URLs for STN Seminar Schedule - N. America Sequence searching in REGISTRY enhanced
JAPIO has been reloaded and enhanced
Experimental properties added to the REGISTRY file
CA Section Thesaurus available in CAPIUS and CA
CASREACT Enriched with Reactions from 1907 to 1985 file segment of TOXCENTER reloaded ENERGY, INSPEC Welcome to STN International ADEX enhancements /WPINDEX/WPIX files on STN isplay formati EDLINE Reload 08 03 08 26 03 116 116 124 124 117 117 117 E 4 4 4 6 6 4 0 4 4 28 05 15 16 19 19 Dec Dec Jan Mar Mar Mar Apr Apr Apr Apr Apr May May May May May May Feb 30 31 32 333 35 41 38 NEWS NEWS NEWS NEWS NEWS . NEWS NEMS NEWS NEWS NEWS NEWS

April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT

NEWS EXPRESS

MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003	STN Operating Hours Plus Help Desk Availability	General Internet Information	Welcome Banner and News Items	Direct Dial and Telecommunication Network Access to STN	CAS World Wide Web Site (general information)	
	NEWS HOURS	INTER	NEWS LOGIN	PHONE	WWW	
	NEWS	NEWS	NEWS	NEWS	NEMS	

to see news on that Enter NEWS followed by the item number or name All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

TOTAL SESSION 0.21 SINCE FILE ENTRY 0.21 FILE 'HOME' ENTERED AT 13:38:58 ON 27 MAY 2003 => file reg COST IN U.S. DOLLARS FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 13:39:08 ON 27 MAY 2003
USE IS SUBJECT TO THE TERMS OF YOUR STR CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem. HIGHEST RN 520505-31-1 HIGHEST RN 520505-31-1 26 MAY 2003 26 MAY 2003 STRUCTURE FILE UPDATES: DICTIONARY FILE UPDATES:

ISCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches

See HELP See HELP CROSSOVER for details. Crossover limits have been increased.

Experimental and calculated property data are now available. See HELI PROPERTIES for more information. See STMORCe 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/SINOTES/stnotes27.pdf

-> s ruthenium Ll 105534 RUTHENIUM

TOTAL SESSION 4.83 SINCE FILE ENTRY 4.62 => file_reg COST IN U.S. DOLLARS FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 13:39:27 ON 27 MAY 2003
USE IS SUBJECT TO THE TERMS OF YOUR STR CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

26 MAY 2003 HIGHEST RN 520505-31-1 26 MAY 2003 HIGHEST RN 520505-31-1 STRUCTURE FILE UPDATES: DICTIONARY FILE UPDATES:

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELD RODERTIES for more information. See STMORE 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STM/STMOTES/stnotes27.pdf

->Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END) : end

-> screen 1953

SCREEN CREATED ũ => Uploading C:\Program Files\Stnexp\Queries\KR ruthenium lipase.str

STRUCTURE UPLOADED

3

=> que L3 NOT L2

QUE L3 NOT L2 14

SCR 1953 => d 14 L4 HAS NO ANSWERS L2 SCR L3 STR

Structure attributes must be viewed using STN Express query preparation. L4

=> 8 14 888 full FULL SEARCH INITIATED 13:40:01 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 627191 TO ITERATE

193167 ANSWERS

63.8% PROCESSED 400000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) SEARCH TIME: 00.00.04

ONLINE **INCOMPLETE**
BATCH **INCOMPLETE**
627191 TO 627191
301236 TO 304526 FULL FILE PROJECTIONS:

PROJECTED ITERATIONS: PROJECTED ANSWERS:

193167 SEA SSS FUL L3 NOT L2

=> file caplus COST IN U.S. DOLLARS

FULL ESTIMATED COST

TOTAL SESSION 152.98

SINCE FILE ENTRY 148.15

FILE 'CAPLUS' ENTERED AT 13:40:12 ON 27 MAY 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (BB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STM. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

VOL 138 ISS 22 (20030526/ED) FILE COVERS 1907 - 27 May 2003 FILE LAST UPDATED: 26 May 2003 This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l5 and l1 55368 L5 75885 L1 L6 514 L5 AND L1

=> s 16 and racemic and lipase
29006 RACEMIC RACEMICS 12 RACEMICS 29010 RACEMIC

(RACEMIC OR RACEMICS)

39468 LIPASE 8867 LIPASES 40846 LIPASE

(LIPASE OR LIPASES) 9 L6 AND RACEMIC AND LIPASE

=> d 1-9

Ľ

ANSWER 1 OF 9 CAPLUS COPYRIGHT 2003 ACS 2002:314889 CAPLUS 1881

136:340534

Method for the production of asymmetrically substituted acyloins and derivatives and for the production of epothilones B, D and their

Wessjohann, Ludger A.; Scheid, Guenther; Bornscheuer, Dwe; Henke, Erik; Kuit, Wouter; Orru, Romano Morphochem A.-G., Germany PCT Int. Appl., 182 pp. derivatives IN

PA SO

Patent

DT Pat LA Ger FAN.CNT

H

APPLICATION NO. KIND PATENT NO.

ટે WO 2001-EP11992 20011016 BA, BB, BG, BR, BY, BZ, CA, CH, WO 2002032844 A2 20020425 W: AE, AG, AL, AM, AT, AU, AZ,

Enzymatic Kinetic Resolution and Chemoenzymatic Dynamic Kinetic Resolution of delta.-Hydroxy Esters. An Efficient Route to Chiral .delta.-Lactones pamies, Oscar; Bacekvall, Jan.E. Arrhenius Laboratory, Department of Organic Chemistry, Stockholm University, Stockholm, SE-106 91, Swed. Outral of Organic Chemistry (2002), 67(4), 1261-1265
CODEN: JOCKAH; ISSN: 0022-3263
American Chemical Society Dynamic Kinetic resolution of .gamma.-hydroxy acid derivatives Dynamic Kinetic resolution of .gammes. Ann-Britt L.; Pamies, Oscar; Faber, Kurt; Backvall, Jan-E. Arrhenius Laboratory, Department of Organic Chemistry, Stockholm University, Stockholm, SE-10691, Swed.
CODEN: TELERY; STOCKHOLM, 25-10691, 43(16), 2983-2986
Elsevier ELERY; ECERY; 1040-4039 Efficient lipase-catalyzed kinetic resolution and dynamic kinetic resolution of .beta.-hydroxy nitriles. A route to useful precursors for .gamma.-amino alcohols
Pamies, Oscar; Backvall, Jan-E.
Department of Organic Chemistry, Arrhenius Laboratory, Stockholm University, Stockholm, 106 91, Swed.
Advanced Synthesis & Catalysis (2001), 343(6+7), 726-731
CODEM: ASCAP7; ISSN: 1615-4150 CASREACT 137:278899 TT 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT CASSEACT 136:263059

TA 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT GB, GD, KZ, LC, NO, NZ, TT, TZ, RU, TJ, AT, BE, PT, SE, SN, TD, 20001016 20010113 DZ, EC, EE, ES, FI, C MK, MN, MM, MK, MZ, KK, SL, TJ, TM, TR, SK, SL, TJ, TM, TR, AZ, BY, KG, KZ, MD, IS, SL, SZ, TZ, UG, ZW, SL, SZ, TZ, UG, ZW, SC, CW, ML, MR, NE, GC, CW, ML, MR, NE, DE 2001-10134172 AU 2002-21693 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2003 ACS 2002:255775 CAPLUS 137:278899 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2003 ACS 2002:64783 CAPLUS COPYRIGHT 2003 ACS DZ, JP, MK, SK, SK, SL, SL, CASREACT 136:340534; MARPAT 136:340534 20020418 20030123 20020429 DX, MD, SG, GB, 20010713 20011016 20001016 CI, ES SE ES CI, ANSWER 4 OF 9 CAPLUS 2001:669911 CAPLUS 44 4 4 3 DE 10051136
DE 10134172
AU 2002021693
DE 2000-10051136
DE 2001-10134172
WO 2001-EP11992 BE, BE, 136:263059 English Journal Journal SO Te CO PB E1 DT JO LA EN CS CA တ္ထ ESE PE S CS So CATERS ACS TESE TASE

Stereoselective method for preparing chiral esters from alkenyl esters via ruthanium catalyzed reduction and enzymic resolution Park. Jai Wook, Kim, Mahn-joo; Koh, Jeong Hwan; Jung, Hyun Min Samsung Fine Chemicals Co., Ltd., S. Korea; Pohang University of Science PCT Int. Appl., 19 pp.

N A S English

Patent

ANSWER 5 OF 9 CAPLUS COPYRIGHT 2003 ACS 2001:416874 CAPLUS 135:19231

TRAL

```
National Research Laboratory of Chirotechnology Department of Chemistry Division of Molecular and Life Sciences, Pohang University of Science and Technology, Pohang Kyunghuk, 790-784, S. Korea Journal of Organic Chemistry (2001), 66(13), 4736-4738

CODEN: JOCEMH; ISSN: 0022-3263

American Chemical Society
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Enantioselective synthesis of the ricciocarpins A and B
Held, Christoph, Prohlich, Roland; Metz, Peter
Institut fur Organische Chemie Technische Universitat Dresden, Dresden,
                                                                      SESE
SESE
                                                                                                                                                                                   ŗ,
                                                                                                                                Я, Р,
                                                                                                                                                                                                                                                                                                                                            Lipsee/Ruthenium-Catalyzed Dynamic Kinetic Resolution of Hydroxy Acids, Diols, and Hydroxy Aldehydes Protected with a Bulky Group Kim, Mahn-Joo; Choi, Yoon Kyung; Choi, Min Young; Kim, Mi Jung; Park,
                                                                                                                                                                      EP 2000-971838 20001018
GB, GR, IT, LI, LU, NL, SE, MC,
                                                                     유.
보유 및 영. 보
                                                                                                                                      EY,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Angewandte Chemie, International Edition (2001), 40(6), 1058-1060
                                                                                                                                                                                                JP 200351536 T2 20030507 US 2000-726412 20001201 US 2001012898 A1 20010809 US 2000-726412 20001201 US 2001012898 A1 20010809 US 2000-726412 20001201 US 447573 B2 20021105 BPA 19991202 WO 2000-KR1169 W 2000108 OS CASREACT 135:19231, MARRAT 135:19231 RECORD RE.CNT 6 THERE E CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CASREACT 135:152357
IT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
                                                                     GH,
                                                         20001018
                                                                                                                                      BE,
                                                                     BZ,
GE,
                                                                   BR, BY,
GB, GD,
LC, LK,
PL, PT,
UG, US,
                                                                                                                                     ZW, AT,
NL, PT,
TD, TG
                                    APPLICATION NO.
                                                                                          KZ,
NZ,
TM,
NZ,
SN,
                                                                      ANSWER 6 OF 9 CAPLUS COPYRIGHT 2003 ACS 2001:412568 CAPLUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ANSWER 7 OF 9 CAPLUS COPYRIGHT 2003 ACS 2001:244193 CAPLUS 135:19788
                                                                                             KG,
TT,
TT,
SZ,
                                                                     AK,
                                                                     AT, AU, DK, DM, DK, DM, DK, DM, MK, MN, TJ, TM, KG, KZ, MW, SD, GB, GR, GW, GW, 20020911
                                                  20010607
                                                                                                                                                                                CH, DE, DK, ES,
LT, LV, FI, RO,
                                                                  AL, AM, CZ, DE, III, IN, MG, MG, SK, SY, KE, LS, FII, FR, CM, GA, GA,
                                    KIND
                                                                                                                                                                        A1
                                                                     R: AT, BE, (IE, SI, )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01062, Germany
                                                         WO 2001040157
                                    PATENT NO.
                                                                                                                                                                      EP 1237837
                                                                                                                                                                                                                                                                                                                                                                                Jaiwook
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          English
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Journal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CNT 36
DT Pat
LA Eng
FAN.CNT
                                                                                                                                                                                                                                                                                                                                                                 AU
                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                SE LA
                                                         Ιď
                                                                                                                                                                                                                                                                                                                                                                                        တ္သ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CS TINE
                                                                                                                                                                                                                                                                                                            TARE
```

THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

Journal English NT 29

PB WEI

Dynamic Kinetic Resolution of Allylic Alcohols Mediated by Ruthenium- and Pohang S. Korea Departments of Organic Chemistry, Uppsala University, Uppsala, S-751 21, Ruthenium- and Enzyme-Catalyzed Dynamic Kinetic Resolution of Secondary Persson, B. Anders; Larsson, Anna L. E.; Le Ray, Mikaeel; Baeckvall, Journal of the American Chemical Society (1999), 121(8), 1645-1650 CODEN: JACSAT; ISSN: 0002-7863
American Chemical Society CASREACT 115:19783 IT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITEMATIONS AVAILABLE IN THE RE FORMAT CASREACT 133:222192 TT 23 THERE ARE 23 CITED REPERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT THERE ARE 97 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT Lipage-Based Catalysts
Let, Donglyun; Huh, Eun A.; Kim, Mahn-Joo; Jung, Hyun Min; Koh,
Hwan; Park, Jaiwook
Department of Chemistry Division of Molecular and Life Science,
Oniversity of Science and Technology, Pohang Kyungbuk, 790-784,
Organic Letters (2000), 2(15), 2377-2379
CODEN: ORLEF7; ISSN: 1523-7060 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2003 ACS ANSWER 8 OF 9 CAPLUS COPYRIGHT 2003 ACS 2000:455856 CAPLUS CODEN: ACIEFS; ISSN: 1433-7851 American Chemical Society Wiley-VCH Verlag GmbH Journal 130:266981 Alcohols English Journal Journal => d abs 9 PB WI DT JO LA End OS CANT SO 5281 S S 1882 AU CS CS LIA

5 2

ANSWER 9 OF 9 CAPLUS COPTRIGHT 2003 ACS
EALYMIC resoln. of secondary alcs. under substrate racemizing conditions
was studied using an immobilized lipase from Candida antarctica
in the presence of a Ru catalyst. A specifically designed acyl donor,
4-chlorophemyl accient, is compatible with both catalysts and resulted in
an efficient dynamic kinetic resoln. Studies of the reaction in different
solvents showed that nonpolar solvents gave the best results. With this
process, racemic secondary alcs. were transformed to the
corresponding enantiomerically pure acetates, making efficient use of all
starting material. In most cases, the reaction proceeded with >99% ee and in good yield.

Connection closed by remote host <------User Break--

Connecting via Winsock to STN

April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.06 ENG) AND V6.005 (JP), WIND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003 SIN OPERALING HOURS PIUB Help DEBK Availability

NEWS EXPRESS

NEWS HOURS

Welcome to STN International! Enter x:x

OGINID: 858pta1623zct

PASSWORD: TERMINAL (ENTER 1, 2, 3, OR ?):2

Welcome to STN International

```
Sequence searching in REGISTRY enhanced
JAPIO has been reloaded and enhanced
Experimental properties added to the REGISTRY file
CASREATE Braiched with Reactions from 1907 to 1985
BRIESTEIN adds new search fields
Nutraceutical International (NUTRACEUT) now available on STN
More calculated properties added to REGISTRY
CSA files on STN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indexing from 1947 to 1956 being added to records in CA/CAPLUS
New current-awareness alext (SDI) frequency in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Simultaneous left and right truncation added to WSCA RAPRA enhanced with new search field, simultaneous left and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE file segment of TOXCENTER reloaded Supporter information for ENCOMPAT and ENCOMPLIT updated CHEMREACT will be removed from STN Simultaneous left and right truncation added to WSCA
                                                                                                                                                                                                                                                                       PCTFULL now covers WP/PCT Applications from 1978 to date VOXENMER enhanced with additional content Adds Clinical Trials Insight now available on STN Simultaneous left and right truncation added to COMPENDEX.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              SDI PACKAGE for monthly delivery of multifile SDI results EVENTLINE will be removed from STW
PATDPAFULL now available on STW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Additional information for trade-named substances without
structures available in REGISTRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RDISCLOSURE now available on STN
Pharmacokinetic information and systematic chemical names
                                                                                                                                                                                                                                                                                                                                                                                                             now available on STN now allows simultaneous left and right truncation
               "Ask CAS" for self-help around the clock
New e-mail delivery for search results now available
PHARMARAKELECTE(PHARMAM) - new on STN
Aquatic Toxicity Information Retrieval (AQUIRE)
now available on STN
for STN Seminar Schedule - N. America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Polymer searching in REGISTRY enhanced
                                                                                                                                                                                                                                                                                                                                                            CANCERLIT is no longer being updated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 formats in DGENE enhanced
                                                                                                                                                                                                                                                                                                                                                                                            PCTGEN now available on STN
                                                                                                                                                                                                                                                                                                                                                                                                                                             PCTFULL now contains images
SDI PACKAGE for monthly del:
                                                                                                                                                                                                                                                                                                                                                                               METADEX enhancements
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPIDS/WPINDEX/WPIX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Display formate
MEDLINE Reload
                                                                                                                                                                                                                                                                                                                                             ENERGY, INSPEC
                2 Apr 08
3 Jun 03
4 Aug 08
5 Aug 19
                                                                                                                                                                                                                                                                                                         Dec 17
Jan 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24
24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17
21
21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28
05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Apr
Apr
Apr
Apr
                                                                                                   Aug
Sep
Sep
Sep
Oct
Oct
Nov
Nov
                                                                                                                                                                                                                                                                                                                                                            Feb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mar
Mar
Mar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Apr
May
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      May
May
May
May
                                                                                                                                                                                                                                                        Dec
                                                                                                                                                                                                                                                                                                           NEWS 18
NEWS 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NEWS 35
NEWS 36
                                                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                27
28
29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 33210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    33
                                                NEWS
NEWS
                                                                                                                 NEWS
NEWS
NEWS
NEWS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NEWS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NEWS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NEWS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NEWS
                                                                                                                                                                                                                                                                                                                                                            NEWS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NEWS
```

General Internet Information Welcome Banner and News Items Direct Dial and Telecommunication Network Access to STN CAS World Wide Web Site (general information) NEWS INTER NEWS LOGIN PHONE NEWS PHONINEWS WWW

ENZYME OR ENZYMES

8867 LIPASES 40846 LIPASE 39468 LIPASE

Enter NEWS followed by the item number or name to see news on that

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties. specific topic

FILE 'HOME' ENTERED AT 14:10:03 ON 27 MAY 2003

TOTAL SESSION 0.21 SINCE FILE ENTRY 0.21 a> file caplus
COST IN U.S. DOLLARS FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 14:10:46 ON 27 MAY 2003
USE IS SUBJUCT TO THE TERNS OF YOUR STR CUSTOMER AGREEMENT.
USE SEE SEE "HELP USAGETERNS" FOR DETAILS.
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (FB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

VOL 138 ISS 22 (20030526/ED) FILE COVERS 1907 - 27 May 2003 FILE LAST UPDATED: 26 May 2003 This file contains CAS Registry Numbers for easy and accurate substance identification.

(RU OR RUS) 72360 RUTHENIUM 20 RUTHENIUMS 20 RUTHENIUM 72360 RUTHENIUM or ruthenium 55838 RU 177 RUS 55992 RU => 8 ru or

RUTHENIUMS (RUTHENIUM OR 89390 RU OR RUTHENIUM 3

810427 ESTER? 2542 L1 AND ESTER? s 11 and ester? ٨

2

and (enzyme or lipase) 674537 ENZYME 385496 ENZYMES 847278 ENZYME -> 8 12

73 L2 AND (ENZYME OR LIPASE) (CATALYST OR CATALYSTS) (COMPLEX OR COMPLEXES) => 8 13 and (complex or co-catalyst) 1078955 COMPLEX 626500 COMPLEXES 1333637 COMPLEX (LIPASE OR LIPASES) (CO OR COS) 625430 CATALYST 625249 CATALYSTS 800257 CATALYST COS 743270 CO 722442 CO ជ

4432 CO-CATALYST (CO(W) CATALYST) 20 L3 AND (COMPLEX OR CO-CATALYST)

Ľ

=> d 1-20

Asymmetric Transformations of Acyloxyphenyl Ketones by **Rnryme** ANSWER 1 OF 20 CAPLUS COPYRIGHT 2003 ACS 2002:894443 CAPLUS 138:122426 TARE

-Metal Multicatalysis
Kim, Mahi-Joo, Choi, Min Young; Han, Min Young; Choi, Yoon Kyung; Lee, Jae
Kwan; Park, Jaiwok
National Research Laboratory of Chirotechnology, Department of Chemistry,
Division of Molecular and Life Sciences, Pohang University of Science and
Journal of Organic Chemistry (2002), 67(26), 9481-9483
American Chemical Society Α̈́ ည

S

CNT 23 RS LA

English CASREACT 138:122426 INT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 2 OF 20 CAPLUS COPYRIGHT 2003 ACS 2002:548947 CAPLUS

137:311016

and dynamic kinetic resolution of alcohols at ambient temperature Choi, Jun Ho; Kim, Yu Hwan; Nam, Se Hyun; Shin, Seung Tae; Kim, Mahn-Joo; Aminocyclopentadienyl ruthenium chloride: Catalytic racemization Ą ISSE

Park, Jaiwook ည

National Research Laboratory of Chirotechnology Department of Chemistry Division of Molecular and Life Sciences, Pohang University of Science and Technology (POSTECH), Pohang, 790-784, S. Korea Angewandte Chemie, International Edition (2002), 41(13), 2373-2376 CODEN: ACIEFS; ISSN: 1433-7851 Wiley-VCH Verlag GmbH 80

Journal

English CASREACT 137:311016 NT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT Ę.

ANSWER 3 OF 20 CAPLUS COPYRIGHT 2003 ACS

7

```
ANSWER 4 OF 20 CAPLUS COPYRIGHT 2003 ACS
2001:30057 CAPLUS
134:310984
Preparation of chiral esters
Preparation of chiral esters
Park, Jai Wook; Kim, Mahn-Joo; Koh, Jeong Hwan, Jung, Hyun Min Samsung Fine Chemicals Co., Ltd., S. Korea; Pohang University of Science PCT Int. Appl., 20 pp.
CODEN: PIXKD2
                                                                                                                                           CH, CN,
GM, HR,
LS, LT,
RO, RU,
VN, YU,
TR, BF,
                                                                                                                                                                                                                                                                                                                                                                                                                                 CH, CN,
ELT, LU,
SD, SE,
YU, ZA,
CH, CY,
BF, BJ,
                                                                                                                                                                                                                                          PT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MC, PT,
                                                                                                                                                                                                 Щ,
ТВ,
                                                                                                                                                                                                                                          ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                 U, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, MD, DZ, EE, ES, FI, GB, GD, GE, GH, GW, MD, DZ, EE, ES, FI, GB, GD, GE, GH, GW, MM, MK, NO, NZ, PL, PT, RO, RU, SD, MT, RT, TZ, UA, UG, US, UZ, VN, YU, MT, TT, TZ, UA, UG, US, MZ, NZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, B, GR, IE, TT, LU, MC, NL, PT, SE, BF, N, GW, ML, MR, NE, SN, TD, TG, EP, 2000-971840 2001018
S, FR, GB, GR, TT, LI, LU, NL, SE, MC
O, MK, CY, AL

20 JP 2001-531776 2001018
                                                                                                                                           GB, GC, GE, GH, GB, GC, GE, GB, GC, GE, GH, GC, GE, CH, FT, R, N, NZ, PL, FT, R, TM, WC, ZW, AT, BE, CG, NZ, WC, NZ, PT, SE, TM, NE, SW, TD, TG, S28865 200.10424 LI, LU, NL, SE, W
                                                                                                                                                                                                                                                                                                                                                                                                                       20001018
BZ, CA,
GE, GH,
LR, LS,
RO, RU,
UZ, VN,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20010424
                                                                                                         DATE
                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NO. DATE
AN 2001:816499 CAPLUS

DN 135:376735

TI Membrane-permeant peptide complexes for medical imaging, diagnostics, and pharmaceutical therapy
IN Piwnica-Worms, David
PR Meahington University, USA
SO PCT Int. Appl., 77 pp.
CODEN: PIXXD2

DT Patent
LA Patent
LA PATENT.
LA PATENT.
LA PATENT.
                                                                                                                    WO 2001-US13179
                                                                                                                                           APPLICATION NO.
                                                                                                                                                                                                                                                                                                                                                                                                                         WO 2000-KR1171
                                                                                                                                                                                                                                                                                                                                                                                                                               FR,
                                                                                                                                             AZ,
KE,
KZ,
KZ,
GR,
                                                                                                               20010426
                                                                                                                                                                                                                                                                                                                                                                                                      KIND DATE
                                                                                                         KIND
                                                                                                                                                                                                                                                                                                                                                                                                                         WO 2001028971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EP 1226105
                                                                                                        PATENT NO.
                                                                                                                                                                                                                                                                                                                                                                                                      PATENT NO.
                                                                                                                                                                                                                                                                                                                                                                    CODEN: P1
DT Patent
LA English
FAN.CNT 1
                                                                                                                                                                                                                                                            PRAI
                                                                                                                           ы
                                                                                                                                                                                                                                                                                        ANTINA S
                                                                                                                                                                                                                                                                                                                                                                                                                         PI
```

ANSWER 5 OF 20 CAPLUS COPYRIGHT 2003 ACS Ľ4

Practical Ruthenium/Lipase-Catalyzed Asymmetric Transformations of Ketones and Enol Acetates to Chiral Acetates Jung, Hyun M., Koh, Jeong H.; Kim, Mahn-Joo; Park, Jaiwook Department of Chemistry Division of Molecular Life Science, Pohang University of Science and Technology (POSTECH), Pohang, 790-784, S. Korea CODEN: ORLEP7; ISSN: 1523-7060 Antinociceptive properties and nitric oxide synthase inhibitory action of CU, CZ, IN, IS, MG, MK, SL, TJ, KZ, MD, ¥,S, OE, new ruthenium complexes Beirith, Alessandra; Creczynski-Pasa, Tania B.; Bonetti, Vilson R.; Konzen, Marlon; Seifriz, Ilana; Paula, Marcos S.; Franco, Cesar V.; Ä, Calixto, Joao B.
Centre of Biological Sciences, Department of Pharmacology, Federal
University of Santa Catarina, Florianopolis, 88015-420, Brazil
Buropean Journal of Pharmacology (1999), 369(3), 289-297
CODEN: EJPHAZ; ISSN: 0014-2999 Journal
English
CASREACT 133:237398
CASTED REFERENCES AVAILABLE FOR THIS RECORD
THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT CH, CN, 1D, 1L, LV, MD, SI, SK, BY, KG, EP 1999-930351 19990618 GB, GR, IT, LI, LU, NL, SE, СН, СХ, ВF, ВЈ, 19990618 CA 1999-2328457 19990618 AU 1999-46905 19990618 DATE Membrane-permeant peptide complexes for medical imaging, diagnostics, and pharmaceutical therapy Piwnica. Worms, David Washingron University, USA PCT Int. Appl., 65 pp. 8 8 E E B SZ, UG, ZW, AT, BE, LU, MC, NL, PT, SE, NE, SN, TD, TG WO 1999-US13660 APPLICATION NO. BB, BG, BR, BY, CGE, GH, GM, HR, H LK, LR, LS, LT, L RO, RU, SD, SE, S YU, ZA, ZW, AM, A US 1999-336093 JP 2000-555935 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2003 ACS 2000:490162 CAPLUS 133:237398 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2003 ACS 1999:819407 CAPLUS 132:61087 CAPLUS COPYRIGHT 2003 ACS \$ 6 7 E X 유. A. T. R. 20010411 DK, ES, FR, 20020219 20020625 19980620 19990618 GR, IE, GW, ML, 19991229 20000110 Œ, KIND F 12 Ş £ ANSWER 9 OF 20 CAPL 1999:249388 CAPLUS 131:67989 US 6348185 JP 2002518521 [US 1998-90087P WO 1999-US13660 AL, DK, TR, CT, CM, R: AT, BE, IE, FI CA 2328457 AU 9946905 AU 755564 EP 1090032 WO 9967284 PATENT NO. English LA ANSWER 2000:48 AN 2000:48 AN 2000:48 AU Transfe AU Ung, P CS Departu CODEN: PB America DT Journal EN CASEAK RE.CNT 18 CINT PRAI LA AN DIN TIIN PA SO SO SO PT LA FAN. A HERE SOS БI

ANSWER 10 OF 20 CAPLUS COPYRIGHT 2003 ACS 1998:197670 CAPLUS 198:1254896 National Last 254896 National Last 254896 National Last 254896 National Last 2900 N.; Wilbur, James; Sigal, George; Maliang-Hong; Fischer, Alan; Leland, Jon; Billadeau, Mark R.; Darvari, Ramin Meso Scale Technologies, LLC, USA PCT Int. Appl., 288 pp. CODEN: PALENT PIXXD2 Patent Emglish CODEN: Emglish CONT 5	M. ALL AM, AT, AU, AU, AU, AU, AU, AU, AU, AU, AU, AU	US 1995-40207 B2 19950310 US 1995-40207 B2 19950310 US 1995-40207 B2 19950310 WO 1997-USL6942 W 19970917 WT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR ALL CITATIONS AVAILABLE IN THE RE FORMAT ANSWER 11 OF 20 CAPLUS COPRIGHT 2003 ACS 1997:672302 CAPLUS COPRIGHT 2003 ACS 1997:672302 CAPLUS COPRIGHT 2003 ACS 1997:67244 diagnostic imaging contrast agents Lauffer, Randall B.; McMurry, Thomas J.; Dunham, Ste M.; Parmelee, David J.; Dunmas, Stephane By Medical, Inc., USA PCT Int. Appl., 80 pp. Reacht Example Copper Proceedings of the Copper Procedure Copper Procedur	A2 19971009 WO 1997-US4804 A3 19980129 C, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, K, EE, ES, FI, CB, GB, GH, HU, IL, IS, JP, KE, LY, LR, LR, LT, LU, LU, WD, MG, MK, MM, MM, FI, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT, TT,
L4 AN DNN TII IN IN SO DT LA FAN.(PI	RE.C. AND DIN TILL IN THE PART SO DIT LIA FAN. C	Id

THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

Elsevier Science B.V.

PB Elsevier DT Journal LA English RE.CNT 33

```
8 B
                                                                                   Υ.
                                                                                                                                                                                                                                                                                                                                           ES, ES,
                                                                                                                                                                                                                                                                                                                                                                                유 폭
                                                                19970325
19970325
, NL, SE, MC, P
                                                                                                                                                                                                                                                                                                                                           AZ, RK,
                 E 8
                                                                                                                                                                                                                                                                                                                                                                                      88
                                                                                                    19970325
19970325
19970325
19980929
19980930
19980930
                                                                                                                                                                                                                                     metal ligand-labeled
                                        19970325
                                                                                                                                                                                                                                                                                                                           19970205
CZ, DE,
KZ, LK,
PT, RO,
VN, AM,
                                                                                                                                                                                                                                                                                                                                                                                                               19960205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19961125
               ES, FI,
CI, CM,
                                                                                                                                                                                                                                                                                                                                                                                     FI, FR,
CM, GA,
                                                                                                                                                                                                         4 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2003 ACS
N 1997:53623 CAPLUS
N 127:184981
I Electrocheminescence enzyme assay using metal ligand-labele substrates and metal complexes
N Martin, Mark T; Dong, Liwen
A igen International, Inc., USA; Martin, Mark T.; Dong, Liwen
CODEN: PIXXD2
T Patent
A English
                                                                                   ĽŪ,
               នុស្ត
                                                                                                                                                                                                                                                                                                                                           S, E, E, E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO 1996-US18889
                                       CA 1997-2247620
AU 1997-25448
                                                                                                                                                                                                                                                                                                                 APPLICATION NO.
                                                                 BR 1997-8470
EP 1997-916974
. GB, GR, IT, LJ, LU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NO.
                                                                                                  CN 1997-193542
NZ 1997-331629
JP 1997-535373
IL 1997-125895
NO 1998-4543
KR 1998-0176
KR 1998-0176
US 2001-952971
     TJ, TM
BE, CH, DE, I
BF, BJ, CF, (
                                                                                                                                                                                                                                                                                                                                                                                                               1996-596830
                                                                                                                                                                                                                                                                                                                                           9,8,8,8,
                                                                                                                                                                                                                                                                                                                                           BY,
KE,
UA,
                                                                                                                                                                                                                                                                                                                                                                                     E E
                                                                                                                                                                                                                                                                                                                                                                                                                                                           COPYRIGHT 2003 ACS
                                                                                                                                                                                                                                                                                                                                                                                                               NS AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ANSWER 13 OF 20 CAPLUS COPYRIGHT 2003; 1997:501269 CAPLUS 127:106334 Interference free biosensor Henning, Timothy P.; Spring, Thomas G. Abbott Laboratories, USA PCT Int. Appl., 22 pp.
      RU,
AT,
SE,
                                                                                                                                                                                                                                                                                                                                           # 6 £ £
                                                                                                                                                                                                                                                                                                                                                                                     BE,
BF,
                                                                                   FR,
      ₿,8,E
                                                                                                                                                                                                                                                                                                                                           BG,
IS,
                                                                                                                                                                                                                                                                                                                                                                                  AT,
  1. AZ, BY, KG, KZ, I

1. IS, MW, SD, SZ, I

1. IJ, MC, ML, E

AA 19971009

AA 19971009

AA 19990413

AZ 19990413

AZ 19990413

AZ 19990413

AZ 19990413

AZ 19990428

AZ 19990428
                                                                                                                                                                                                                                                                                                                         A1 19970807
AT AU AZ BB, BB, GB, HU, IL, IL, IL, IL, MB, MC, MC, MC, MC, TU, TM, MD, RU, TU, TM, TM, MC, RU, TU, TM, MW, SD, SZ, UG, AM, SD, SZ, UG, AM, SD, SZ, UG, AM, SD, SZ, UG, NL, TD, TG, SN, TD, TG
                                                                                                                                                                                                                                                                                                                                                                                                               19980908
19970822
19960205
19970205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19970626
                                                                                                                                                                                          19970325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KIND DATE
YU, AA,
RW: GH, KE,
GR, IE,
ML, MR, A
AU 72448 B.
AU 72614 B.
BR 9708470 A.
EP 970379 A.
EP 971379 A.
EP 971379 A.
EP 121341 A.
Yu 121341 A.
Zu 121341 A.
Zu 121341 A.
                                                                                                                                                                                                                                                                                                                 KIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  - A1
                                                                                                     CN 121531
NZ 311629
JP 2000507577
II 125895
NO 9804543
KR 2000005422
KR 2000005422
US 2002034476
US 1997-623643
WO 1997-US4804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9722715
                                                                                                                                                                                                                                                                                                                  PATENT NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PATENT NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       English
                                                                                                                                                                                                           114 ANS
AN 199
DN 127
TI E1e
TI Sub
IN MAT
IN MAT
EN 196
COD
COD
DT PAT
ILA ENG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ું કુ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ы
```

```
SE
                Ę
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ĪΒ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                      AR, UR,
                                                                                                                                      Stereoselective synthesis of .beta.-keto esters from prop-2-yn-1-ols barcel, Christophe; Bruneau, Christian; Dixneuf, Pierre H.; Roberts, Stanley M. Lab. Chimie Coordination Catalyse, Univ. Rennes, Rennes, F-35042, Fr. Terzahedron (1997), 53(27), 9241-9252
                Ŗ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                      H.
其美日
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PT,
                                                                                                                                                                                                                                                                                                     Electrochemical biosensors and process for their preparation Svorc, Josef; Miertus, Stanislav; Stredansky, Miroslav Stredansky, Salcom S.R.L., Italy; Svorc, Josef; Miertus, Stanislav; Stredansky, Miroslav
W: CA, JP

RW: AT, BE, CH, DE, DK, ES, FI, FR, CB, GR, IE, IT, LU, MC,

$755593 A 19980111 EP 1996-940610 19961125

R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL

2000504205 T2 20000411 JP 1997-522812 19961125

1995-563728
                                                                                                                                                                                                                                                                                                                                                                                                                                   19960703
GE, HU,
MD, MG,
TM, TR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FR,
GA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GR, IT, LI, LU, NL, SE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AU 1996-65181 .19960703
EP 1996-924868 19960703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ŗ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                    CZ, EB,
LU, LV,
SK, TJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DK, ES,
CG, CI,
                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AT 1996-924868
ES 1996-924868
US 1997-1695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ensyme-triggered formation of electrochemiluminescent
                                                                                                                                                                                                                                                                                                                                                                                                                                                      S. I. I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ruthenium complexes
Dong, Liwen, Martin, Mark T.
IGRN, Inc., Gatthersburg, MD, 20877, USA
Analytical Biochemistry (1996), 236(2), 344-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                      9 3, 8,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BE, CH, 1
BF, BJ, (
                                                                                                                                                                                                                                                                        ANSWER 15 OF 20 CAPLUS COPYRIGHT 2003 ACS 1997:181168 CAPLUS 126:166818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ANSWER 16 OF 20 CAPLUS COPYRIGHT 2003 ACS 1996:272098 CAPLUS 124:310843
                                                                                                     ANSWER 14 OF 20 CAPLUS COPYRIGHT 2003 ACS 1997:465389 CAPLUS 127:161310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                      SD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                      RU,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AT,
SE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FR,
                                                                                                                                                                                                                                                                                                                                                                                                                                   MO 9702359

M. AL, AM, AU, AZ, BB, BG, BR, MP, KE, KG, KP, KR, KZ, LK, MW, NO, NZ, PL, RO, RU, UG, US

RW: KE, LS, WW, SD, SZ, UG, AT

IE, IT, LU, MC, NL, PT, SB, NE, SN, TD, TG

AU 9665181

AU 1990617

EP 847447

BI 19901110

R: AT, BE, CH, DE, DK, ES, FR

AT 186572

E 19991115
                                                                                                                                                                                                                                                                                                                                                                                                                                 A1 19970123
AU, AZ, BB, BG, B
KG, KP, KR, KZ, L
NO, NZ, PL, RO, R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19991115
20000316
20020122
19950705
                                            R: AT, BE, CH, DE
JP 2000504205
I US 1995-563728
WO 1996-US18889
                                                                                                                                                                                                                                                                                                                                                                                                                     KIND
                                                                                                                                                                                                                                                                                                                                                            PCT Int. Appl., 47 pp. CODEN: PIXXD2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            я В 13
                                                                                                                                                                                                                                                         CASREACT 127:161310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2141518
6340597
1995-MI1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1996-EP2919
                                                                                                                                                                                                                                                                                                                                                                                                                    PATENT NO.
                                                                                                                                                                                                                                                                                                                                                                                              English
                                                                                                                                                                                                                                                English
                                                                                                                                                                                                                                      Journal
                           EP G
                                                                                                                                                                                                                                                                                                                                                                          COL
DT Pat
LA Eng
FAN.CNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AT
US
US
IT
                                                                       PRAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRAI
                                                                                                                                                             SC &CS
                                                                                                                                                                                                                                                                            S PA ITI NA S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOS TENER
                                                                                                         TANE
                                                                                                                                                                                                                     PB FIG
```

Improved preparation of 7-(N-(1-(S)-carboethoxy-3-phenylpropyl-(S)-alanyl)-Covalently-linked complexes and methods for enhanced cyctoxicity and imaging Anderson, David C.; Morgan, A. Charles; Abrams, Paul G.; Nichols, Everett J.; Fritzberg, Alan R. Benx Copt., USA Bur. Pat. Appl., 23 pp. CODEN: EPXXDW Cardiolipin is synthesized on the matrix side of the inner membrane in rat , SE 19880815 19890807 19890811 19890814 19890330 19890814 1,4-dithia-7-azaspirol4,4]nonan-8(S)-carboxylic acid Edmunds, Andrew John Francis; Engeli, Peter; Muehle, Herbert Sandoz A.-G., Switz. Ger. [Bask], 16 pp. DATE Ä Schlame, Michael; Haldar, Dipak Dep. Biol. Sci., St. Uohn's Winv., Jamaica, NY, 11439, Journal of Biological Chemistry (1993), 268(1), 74-9 CODEN: JECHA3; ISSN: 0021-9258 1989-4613873 APPLICATION NO. R, IT, LI, LU, NI US 1988-232337 US 1989-390241 CA 1989-608198 JP 1989-209922 AT 1989-250014 APPLICATION NO. EP 1989-250014 DD 1989-327079 SU 1989-4613873 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2003 ACS 1991:400778 CAPLUS ANSWER 20 OF 20 CAPLUS COPYRIGHT 2003 ACS COPYRIGHT 2003 ACS COPYRIGHT 2003 ACS 욨, CH, DE, ES, FR, GB, G A 19920804 A 19921208 A1 19950221 A2 19900514 E 19930115 19901017 19900418 19890814 19890330 19900321 CODEN: ANBCA2; ISSN: 0003-2697 DATE ANSWER 17 OF 20 CAPLUS 1993:34532 CAPLUS ANSWER 19 OF 20 CAPLUS KIND KIND DD 283626 A5 SU 1671163 A3 I DD 1989-327079 CASREACT 114:247801 A2 B1 A3 1991:247801 CAPLUS liver mitochondria R: AT, BE, C US 5165933 CA 1334513 CA 1334513 JP 02124833 AT 83669 EV 1989-250014 114:247801 EP 359347 EP 359347 EP 359347 PATENT NO. PATENT NO. Patent English Academic English Journal Journal DT Paten LA Germa FAN.CNT 1 COD DT Pat LA Eng FAN.CNT PRAI OS PRAI Z 1885 NA ΡΙ LA SO SO LI 4 A N I SOA ᅜ P I B

```
This study evaluates the actions of the new ruthenium

complease trans: Ruciz(inic)4] (complex: I) as antinociceptives, and

trans=[Ruciz(i-nic)4] (complex: I) as antinociceptives, and

trans=[Ruciz(i-nic)4] (complex: I) as antinociceptives, and

their interaction with nitric oxide isoenzymes and with

acety/choline: induced relaxation of rat and rabbit acotta. Complex

II inhibited, in a graded manner, neuronal and inducible nitric oxide (NO)

synthase; and was about two fold more effective in inhibiting the neuronal

NO synthase than the inducible form of the emryme.

Complex: We include the neuronal and inducible nitric oxide synthase because they
did not change the mean arterial blood pressure of rate. The vasorelaxant
effect of acetylcholine was markedly antagonized by the Complexes

I and II in rings of both rat and rabbit acrta. Complexes I and

II, given i.p., like N.omega.-nitro-1-arginine Me ester (!-NAME)

and NG-nitro-1-arginine (!-NOARG), inhibited, in a graded manner, both
phases of the pain response induced by formalin. The actions of 1-NAME,

I NOARG and Complex III but not that of Complex!
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     were largely reversed by 1-arginine. Both complexes failed to affect the motor response of animals in the rota-rod test and had effect in the hot-plate assay. Together, these findings provide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Complex II and its derivs., might be of potential therapeutic benefit in the management of pain disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        indications that the new ruthenium complexes, esp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2569 KINETIC RESOLUTION
(KINETIC(W) RESOLUTION)
76 RUTHENIUM AND KINETIC RESOLUTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (RESOLUTION OR RESOLUTIONS)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (RUTHENIUM OR RUTHENIUMS)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (RESOLUTION OR RESOLN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                => s ruthenium and kinetic resolution
72360 RUTHENIUM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (KINETIC OR KINETICS)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (RESOLN OR RESOLNS)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESOLUTIONS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RUTHENIUMS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          81952 RESOLUTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  868 RESOLUTION
82426 RESOLUTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 281379 RESOLUTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           313270 KINETIC
692537 KINETICS
849255 KINETIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20 RUTHENIUM
72360 RUTHENIUM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5504 RESOLNS
246779 RESOLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          243889 RESOLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
```

=> \$15 and ?ase '?ase' NOT LONG ENOUGH FOR LEFT TRUNCATION You have entered a truncated stem whose length is less than

1954:15810 CAPLUS

* 48:2904g-i.2905a-b Biological activity of complex ions Dwyer, F. P.; Gyarfas, Eleonora C.; Rogers, W. P.; Koch, Judith H. Sydney Univ., Australia Nature (1952), 170, 190-1

DN

Unavailable

E 12 8 8 5 5

dabs 9

AB AB ٨

the minimum allowed for left truncation in the requested search field. You may increase the length of the stem to the minimum allowed and try again. Enter HELP SFIELDS to to find the minimum stem length for left truncation in the requested search field. (COMPLEX OR COMPLEXES) (ACYLASE OR ACYLASES)
0 L5 AND ACYLASE CHIRALS) 38120 RACEMI? 20 L8 AND RACEMI? 46 LS AND COMPLEX (CHIRAL OR 29 L7 AND CHIRAL -> 8 15 and complex 1078955 COMPLEX 626500 COMPLEXES 1333637 COMPLEX 2421 ACYLASE 287 ACYLASES 2478 ACYLASE m> s 17 and chiral 84305 CHIRAL 12 CHIRALS 84308 CHIRAL s 15 and acylase =>'s 18 and racemi? 13 3 ያ

Catalytic oxidations using **ruthenium** porphyrins
Ezhova, Maria B.; James, Brian R.
Department of Chemistry, University of British Columbia, Vancouver, BC, V6T 121, Can. ANSWER 1 OF 20 CAPLUS COPYRIGHT 2003 ACS 2003:336636 CAPLUS => d 1-20 . 179 CRIMER

Catalysis by Metal Complexes (2003), 26(Advances in Catalytic Activation of Dioxygen by Metal Complexes), 1-77
CODEN: CMCDES; ISSN: 030-4652
Kluwer Academic Publishers Journal; General Review English PB K1 DT Jo LA En RE.CNT S

THERE ARE 201 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

Asymmetric hydrogenation of an .alpha.,.beta.-unsaturated ketone by diamine(ether-phosphine)ruthenium(II) complexes and lipase-catalyzed kinetic resolution: a consecutive ANSWER 2 OF 20 CAPLUS COPYRIGHT 2003 ACS 2003:273130 CAPLUS approach SAT TAS

Lindher, Ekkehard: Ghanem, Ashraf; Warad, Ismail; Eichele, Klaus; Mayer, Hermann A.; Schurig, Volker Institute of Inorganic Chemistry, University of Tubingen, Auf der Morgenstelle 18, Tubingen, 72076, Germany Terrahedron: Asymmetry (2003), 14(8), 1045-1053 CODEN: TASYE3; ISSN: 0957-4166 CS &

SO

Elsevier Science Ltd Journal

E 13

ANSWER 3 OF 20 CAPLUS COPYRIGHT 2003 ACS 2002:548947 CAPLUS TARE

137:311016

Catalytic Aminocyclopentadienyl ruthenium chloride: Cataracemisation and dynamic kinetic resolution of

alcohols at ambient temperature Choi, Jun Ho; Kim, Yu Hwan; Nam, Se Hyun; Shin, Seung Tae; Kim, Mahn-Joo; Park, Jaiwook

ΑÜ

National Research Laboratory of Chirotechnology Department of Chemistry Division of Molecular and Life Sciences, Pohang University of Science and Technology (POSTECH), Pohang, 790-784, S. Korea Angewandte Chemie, International Edition (2002), 41(13), 2373-2376 Wiley-VCH Verlag GmbH S

S

Journal PB Wiley-TDT Journal LA English OS CASREACRE RE.CNT 26

English CASREACT 137:311016 NT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 4 OF 20 CAPLUS COPYRIGHT 2003 ACS 2001:924398 CAPLUS 136:199768

TRAE

Dynamic kinetic transformation of sulfinyl chlorides: synthesis of enantiomerically pure C2-symmetric bis-sulfoxides Khiar, Noureddine; Araujo, Cristina S.; Alcudia, Felipe; Fernandez, Inmaculada Ŋ.

Instituto de Investigaciones Químicas, CSIC-Universidad de Sevilla Seville, 41092, Spain Journal of Organic Chemistry (2002), 67(2), 345-356 CODEN: JOCEMH; ISSN: 0022-3263 SS S

American Chemical Society

Journal PB Ame DT JOI LA Enc RE.CNT

THERE ARE 128 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT English

ANSWER 5 OF 20 CAPLUS COPYRIGHT 2003 ACS 2001:640941 CAPLUS CSIAN

80

Ruthonium-catalyzed asymmetric ring-closing metathesis
Ruthonium-catalyzed asymmetric ring-closing metathesis
Ward, D. William; Seiders, T. Jon; Grubbs, Robert H.
Ward, D. William; Seiders, T. Jon; Grubbs, Robert H.
Technology, Pasadena, CA, 91125, USA
Abstracts of Papers, 222nd ACS National Meeting, Chicago, IL, United
Seciety, Washington, D. C.
CODEN: 698UZP

Conference; Meeting Abstract

English

Ed

ANSWER 6 OF 20 CAPLUS COPYRIGHT 2003 ACS 2001:494862 CAPLUS 135:250841 ISSE

Catalytic Fluorination by Halide Exchange with 16-Electron Ruthenium(II) Complexes. X-ray Structure of [Tl(.mu.-F)2Ru(dppe)2]PF6

Barthazy, Peter; Togni, Antonio, Nezzetti, Antonio
Laboratory of Inorganic Chemistry, Swiss Federal Institute of Technology
ELT Zentrum, Zurich, CH-8092, Switz.
Organometallics (2001), 20(16), 3472-3477
CODEN: ORGND7; ISSN: 0276-7333 S &

8

American Chemical Society PB Ame DT JOU LA ENG RE.CNT

THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD ₽

ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
134:178288
Ainefor resolution of chiral racemic alcohols by BITANP-ruthenium (II) catalyzed hydrogenation alcohols by BITTANP-ruthenium (II) catalyzed hydrogenation Araneo, S. R.; Cesarotti, E.; Berta, D. Universita di Milano, Dipartimento di Chimica Inorganica, Metallorganica ed Analitica, Centro CMR, Milan, 20133, Italy Coppus, aocembr. ISSN: 0268-2605
John Wiley & Sons Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                Pohang
S. Korea
                                                                                                                                                                                                                                                                                                                        Dynamic Kinetic Resolution of Allylic Alcohols
Mediated by Ruthenium- and Lipase-Based Catalysts
Lee, Donghyun, Huh, Eun A.; Kim, Mahn-Joo; Jung, Hyun Min; Koh, Jeong
Hwan; Park, Jaiwook
Department of Chemistry Division of Molecular and Life Science, Pohang
University of Science and Technology, Pohang Kyungbuk, 790-784, S. Kor
Organic Letters (2000), 2 (15), 2377-2379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         complexes
Uchida. Tateuya; Takeda, Tsuyoshi; Hamada, Tetsuya; Mihara, Jun; Irie,
Ryo; Katsuki, Tsutomu
Graduate School of Science, Kyushu University, Japan
Tennen Yuki Kagobutsu Toronkai Koen Yoshishu (1999), 41st, 517-522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Department Molecular Chemistry, Graduate School Science, Kyushu Univ., Frkucka, 812, Japan
Symlett (1999), (7), 1160-1162
CODEN: SYNLES; ISSN: 0936-5214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        racemic epoxides
Mihara, Jun; Hamada, Tecsuya; Takeda, Tsuyoshi; Irie, Ryo; Katsuki
                                                                                                                                                                                            English
CASREACT 134:178288
CASREACT THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Journal
English
CASREACT 133:222192
CASTE AB 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Photo-controlled Lewis acidity. Chiral (ON)Ru-salen-catalyzed hetero Diels-Alder reaction and kinetic resolution of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Asymmetric synthesis using new chiral (salen)ruthenium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ANSWER 10 OF 20 CAPLUS COPYRIGHT 2003 ACS 1999:444675 CAPLUS
                                                                                                                                                                                                                                                                       ANSWER 8 OF 20 CAPLUS COPYRIGHT 2003 ACS 2000:455856 CAPLUS 133:222192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ANSWER 9 OF 20 CAPLUS COPYRIGHT 2003 ACS 1999:776489 CAPLUS 133:119889
ANSWER 7 OF 20 CAPLUS COPYRIGHT 2003 ACS 2000:872054 CAPLUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                American Chemical Society
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Georg Thieme Verlag
Journal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nippon Kagakkai
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CODEN: TYKYDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           131:257028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          reutomu
                                                                                                                                                                                     Journal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Journal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S.
       8 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TARE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AC
CS
```

```
Enantioselective Oxidation of Racemic Phosphines with
Chiral Oxoruthenium Porphyrins and Crystal Structure of
[5,10,15,20-Tetrakis] [0-((2-methoxy-2-phenyl-3,3,3-
Island Oxoruthenium Porphyrins and Crystal Structure of
[5,10,15,20-Tetrakis] [0-((2-methoxy-2-phenyl-3,3,3-
Island Manno) Phenyl porphyrinato] (carbonyl) (tetrahydrofuran)
Luthanium(II) (.alpha., beta., alpha., beta. Isomer)
Luthaux, Paul; Bahri, Hassan; Simonneaux, Gerard; Toupet, Loic
Laboratoire de Chimie Organometallique et Biologique, Universite de Rennes
1, Rennes, 35042, Fr.
Inorganic Chemistry (1995), 34(18), 4691-7
American Chemical Society
                                                                                                                                                           Kinetic resolution of racemic secondary
alcohols by Ruli-catalyzed hydrogen transfer
Hashiguchi, Shohei, Fujii, Akio; Haack, Karl-Josef; Matsumura, Kazuhiko;
Ikariya, Takao, Noyori, Ryoji
ERATO Molecular Catalysis Project, Res. Development Corporation Japan,
Angewandte Chemie, International Edition in English (1997), 36(3), 288-290
CODEN: ACIEAY; ISSN: 0570-0833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACS Symposium Series (1996), 641(Reductions in Organic Synthesis), 31-51
CODEN: ACSMCB, ISSN: 0097-6156
American Chemical Society
Journal; General Review
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New developments in chiral ruthenium (II) catalysts for asymmetric hydrogenation and synthetic applications Genet, Jean Pierre
Genet, Jean Pierre
Lab. Synthese Organique Associe, Centre National Recherche Sci., Paris,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ruthenium(II) Complexes
Obkuma, Takeshi; Ooka, Hirohito; Yamakawa, Masashi; Ikariya, Takao;
Noyori, Ryoji, Ryoji
ERATO Molecular Catalysis Project, Research Development Corporation of
                                      THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Stereoselective Hydrogenation of Simple Ketones Catalyzed by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Japan, Toyota, 470-03, Japan
Journal of Organic Chemietry (1996), 61(15), 4872-4873
CODEN: JOCEAH: ISSN: 0022-3263
American Chemical Society
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ANSWER 12 OF 20 CAPLUS COPYRIGHT 2003 ACS 1996:528662 CAPLUS 125:246828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ANSWER 13 OF 20 CAPLUS COPYRIGHT 2003 ACS 1996:401833 CAPLUS 125:167365
                                                                                                    COPYRIGHT 2003 ACS
                                                                                                  ANSWER 11 OF 20 CAPLUS
1997:142099 CAPLUS
                                                                                                                                                                                                                                                                                                                                                                        English
CASREACT 126:263647
English CASREACT 131:257028
                                                                                                                                             126:263647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     English
                                                                                                                                                                                                                                                                                                                                                      Journal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Journal
  LA English
OS CASREAC
RE.CNT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TRAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ပ္တ
                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               記は当
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TANE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          e d s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              品品
                                                                                                      1886
                                                                                                                                                                                                      A
                                                                                                                                                                                                                                                                                                                               S L M
                                                                                                                                                                                                                                                                                                                                                                                                                                   TERE
```

English ANSWER 15 OF 20 CAPLUS COPYRIGHT 2003 ACS 1995:476981 CAPLUS 123:143550 A new enantioselective synthesis of glycidates via dynamic kinetic	CS Lab. Synth. Org., Ec. Natl. Super. Chim. Paris, 75231, Fr. SO Tetrahedron: Asymmetry (1991), 2(7), 555-67 CODEN: TASYE3; ISSN: 0957-4166 DT Journal LA English OS CASREACT 115:208489
resolution of racemic 2-chloro-3-keto esters using chiral Ru(II) complexes chloro-3-keto esters using chiral Ru(II) complexes Cano de Andrade, M. C.; Ratovelomanana-Vidal, V. Genet, Jean-Pierre, Cano de Andrade, M. C.; Ratovelomanana-Vidal, V. Lab. Synthese Organique, Ec. Nationale Superieure de Chimie de Paris, Paris, 75231, Fr. Tetrahedron Letters (1995), 36(12), 2063-6 CODEN: TELEAY; ISSN: 0040-4039 Elsevier Journal	AN 1988:94100 CAPLUS AN 1988:94100 CAPLUS TI Annetts resolution of racemic allylic Alcohols by BINAP-ruthenium(II) catalyzed hydrogenation Kitamura, Masato; Kasahara, Isamu; Manabe, Kenji; Noyori, Ryoji; Takaya, Hidemsa CS Inst. Mol. Sci., Nagoya Univ., Okazaki, 444, Japan
Engilsh ANSWER 16 OF 20 CAPLUS COPYRIGHT 2003 ACS 1995:21857 CAPLUS 122:8664 Ainetic resolution of cyclic .betaketo	
esters with preformed or in-situ prepared chiral diphosphine- ruthenium(II) catalysts Genet, J. P.; Pfister, X.; Ratovelomanana-Vidal, V.; Pinel, C.; Laffitte, J. A. CNRS, Pierre Marie Curie, Paris, 75231, Fr. Tetrahedron Letters (1994), 35(26), 4559-62 CODEN: TELENX: 15SN: 0040-4039	a> logoff ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF LOGOPF? (Y)/N/HOLD:y COST IN U.S. DOLLARS FULL SETIMATED COST FULL SETIMATED COST 95.50 95.71
Journal English	OR QUALIFYING ACCOUNTS) SINCE FILE
ANSWER 17 OF 20 CAPLUS COPYRIGHT 2003 ACS 1993:21717 CAPLUS	
118:271777 New 2, 2'-bis(diphenylphosphino)-1,1'-binaphthylruthenium(II) complexes for asymmetric catalytic hydrogenation Takaya, Hidemasa; Ohta, Tetsuo, Rashima, Kazushi Fac. Eng., Kyoto Univ., Kyoto, 606, Japan Advances in Chemistry Series (1992), 230(Homogeneous Transition Met.	STN INTERNATIONAL LOGOFF AT 14:50:59 ON 27 MAY 2003 Connecting via Winsock to STN
Catal. React.), 123-42 Cobn: ADCSAJ; ISSN: 0065-2393 Journal; General Review English	Welcome to STN International! Enter x:x
ANSWER 18 OF 20 CAPLUS COPYRIGHT 2003 ACS 1992.425718 CAPLUS 117:25718 CAPLUS CAPDARate-directed stereoselective hydrogenation and kinetic	LOGINID:sssptal623zct PASSWORD: TERMINAL (ENTER 1, 2, 3, OR ?):2
Takagi, Masatoshi; Yamamoto, Keiji Dep. Chem. Eng., Tokyo, Inst. Technol., Tokyo, 152, Japan	* * * * * * * * * Welcome to SIN International * * * * * * * * * *
Tetrahedron (1991), 47(42), 8869-82 JODEN: TETRAB; ISSN: 0040-4020 JOURNAL English CASREACT 117:25718	NEWS 1 Web Page URLs for STN Seminar Schedule 'N. America NEWS 2 Apr 08 "Ask CAS" for self-help around the clock NEWS 3 Jun 03 New e-mail delivery for search results now available NEWS 4 Aug 08 PHARMAMARKetLetter(PHARMAMA), - new on STN NEWS 5 Aug 19 Annahio Tockoff That Takormation Detrieval (Annipp)
ANSWER 19 OF 20 CAPLUS COPYRIGHT 2003 ACS 1991:60489 CAPLUS 115:206489 CAPLUS 115:206489 Asymmetric synthesis. Practical production of D and L threonine. Dynamic kinetic resolution in rhodium and ruthensium catalyzed hydrogenation of 2. (acylamino) -3-oxobutyzates Genet, J. P.; Pinel, C.; Mallart, S.; Juge, S.; Thorimbert, S.; Laffitte, J. A.	6 Aug 26 7 Sep 03 8 Sep 16 9 Sep 16 10 Oct 01 11 Oct 24

AU

TI DAN I

AU CS SO PB DT LA LA AN TI

```
Polymer searching in REGISTRY enhanced
Indexing from 1947 to 1956 being added to records in CA/CAPLUS
New current-awareness alert (SDI) frequency in
                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE file segment of TOXCENTER reloaded
Supporter information for ENCOMPPAT and ENCOMPLIT updated
CHEMREACT will be removed from STN
Simultaneous left and right truncation added to WSCA
RAPRA enhanced with new search field, simultaneous left and
                                                                                                                                                                                                                                     Additional information for trade-named substances without structures available in REGISTRY Display formats in DGENE enhanced MEDLINS Reload
                                         PCTFULL now covers WP/PCT Applications from 1978 to date TOXCENTER enhanced with additional content Addis Clinical Trials Insight now available on STN Simultaneous left and right truncation added to COMPENDEX.
                                                                                                                                                                                  PCTFULL now contains images
DESTRUCT FOR MOUNTING SDI results
EVENTLINE Will be removed from STN
PATDPAPULL now available on STN
                                                                                                                                                                                                                                                                                                                                                  RDISCLOSURE now available on STN
Pharmacokinetic information and systematic chemical names
                                                                                                                                                      TEMA now available on STN TIS now allows simultaneous left and right truncation
DXILIT has been renamed APOLLIT
More calculated properties added to REGISTRY
CSA files on STN
                                                                                                 ENERGY, INSPEC
CANCERLIT is no longer being updated
                                                                                                                            METADEX enhancements
PCTGEN now available on STN
                                                                                                                                                                                                                                                                                                                                        PIDS/WPINDEX/WPIX
                                                                                                           Feb 13
Feb 24
Feb 24
Feb 26
Mar 04
Mar 20
Mar 24
                                                                                                                                                                                                                                                                 Apr 11
Apr 14
Apr 17
Apr 21
Apr 21
   18
25
04
17
17
17
29
                                                                                                                                                                                                                                                                                                                                                    28
05
                                                                                                                                                                                                                                                                                                                                                                                          15
16
19
19
                                           Dec
Dec
Jan
                                                                                                                                                                                                                                                                                                                                                    Apr
                                                                                                                                                                                                                                                                                                                                                                                              May
May
May
May
                                                     NEWS 17
NEWS 18
NEWS 19
                                                                                                                                                                                                                                       29
                                                                                                                                                                                                                                                                  33 33 34 34 34
                                                                                                              20
                                                                                                                                                                                                                                                                                                                                                     35
                                                                                                                                                                                                                                                                                                                                                                                            33
                                                                                                                                                                                                                                                                  NEWS
NEWS
NEWS
NEWS
NEWS
                                                                                                                                                                                                                                                                                                                                                    NEWS
                                                                                                                                                                                                                                                                                                                                                                                                                      NEWS
NEWS
NEWS
                                                                                                             NEWS
NEWS
NEWS
NEWS
NEWS
NEWS
NEWS
                                                                                                                                                                                                                                       NEWS
                                                                                                                                                                                                                                                                                                                                                                                              NEWS
                                                                                                                                                                                                                                                                                                                                                                                                           NEWS
```

April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT, WACINTOSH VERSION IS V6.0b[EMG] AND V6.0Jb[JP], AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003 SYN Operating Hours Plus Help Desk Availability General Internet Information Welcome Banner and News Item Welcome Danner and News Item Cas World Wide Web Site (general information) NEWS EXPRESS LOGIN HOURS NEWS WWW NEWS NEWS NEWS NEWS

Enter NEWS followed by the item number or name to see news on that

specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 07:39:34 ON 28 MAY 2003

-> file caplus COST IN U.S. DOLLARS FULL ESTIMATED COST

TOTAL SESSION 0.21

SINCE FILE ENTRY 0.21

FILE 'CAPLUS' ENTERED AT 07:39:50 ON 28 MAY 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT: PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

or storing Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (FB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storin of this information, without the prior written consent of CAS, is strictly prohibited

FILE COVERS 1907 - 28 May 2003 VOL 138 ISS 2: FILE LAST UPDATED: 27 May 2003 (20030527/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 1997:142099/an Ll 1997:142099/AN

=> d ibib abs

Kinetic resolution of racemic secondary alcohols by RuII-catalyzed hydrogen transfer. Hashiguchi, Shohei, Phili, Akio, Haack, Karl-Josef, Matsumura, Kazuhiko, Ikariya, Takao, Noyori, Ryoji ERATO Molecular Catalysis Project, Res. Development Corporation Japan, Toyota, 470-03, Japan Angewandte Chemie, International Edition in English CAPLUS COPYRIGHT 2003 ACS 1997:142099 CAPLUS 126:263647 LI ANSWER 1 OF 1 ACCESSION NUMBER: DOCUMENT NUMBER: CORPORATE SOURCE: AUTHOR (S): SOURCE: TITLE:

(1997), 36(3), 288-290 CODEN: ACIEAY, ISSN: 0570-0833 VCH English CASREACT 126:263647 Journal OTHER SOURCE (S) DOCUMENT TYPE: LANGUAGE: PUBLISHER:

Chiral Ru(II) complexes (S,S)-I (L = p-cymene, mesitylene) catalyzed the kinetic resoln. of racemic secondary also. (e.g., p-RGHGTMBGOH (R = H, MeO, MeZN), PhGH:GHGTMBGOH, 1-(hydroxyethyl)ferrocene, 1-tetralol, 1-indanol, etc.] by transfer hydrogenation in MeZCO. The S enantiomer was converted to the corresponding ketone, leaving the unreacted R enantiomer in 92-99% e.e. at .apprx.50% conversion. AB

s ruthenium and lipase ٨

AB The Ruc12(.eta.1-Ph2PCH2CH3)2(diamine) complexes 211-215 have been prepd. in high yields from the reaction of equimolar amts. of recal.2-pPSPCH2CH3CH30(2) with various kinds of chelating diamines Lu1-15 to form five-membered chelates with ruthanium. These novel ruthanium(II) complexes have been used as catalysts in the asym. Mydrogenation of the prochizal ketone trans-4-phanyl-3-butene-2-one asym. Mydrogenation of the prochizal ketone trans-4-phanyl-3-butene-2-one with achiral diamines afforded the racemic alcs., complexes with chiral diamines afforded the racemic alcs., complexes with chiral diamines afforded the racemic alcs., complexes with chiral admaines afforded the racemic alcs., complexes with chiral diamines afforded the formation of the corresponding enantiomerically enriched secondary alc. (S or R) with ee values of 45%. In order to obtain the secondary alc. with ee of >99%, the kinetic resolution for enantiomerically enriched trans-4-phanyl-3-butene-2-ol 3 was performed in a consecutive approach using either the 11pase catalyzed enantioselective transesterification of the alc. with hydrolysis of the corresponding acetate in buffer. The detn. of the resulting enantiomerically enriched secondary alcs. was performed by gas chromatog. using heptakis(2,3-di-O-methyl-6-O-tert-butyldimethylsilyl)-.beta.cyclodextrin as the chiral stationary phase. approach
Lindner, Ekkehard; Ghanem, Aehraf; Warad, Ismail;
Lindner, Ekkehard; Ghanem, Aehraf; Waver, Schurig, Volker
Encitute of Inorganic Chemietry, University of
Tubingen, Auf der Morgenstelle 18, Tubingen, 72076, Tetrahedron: Asymmetry (2003), 14(8), 1045-1053 CODEN: TASYE3; ISSN: 0957-4166 Asymmetric hydrogenation of an .alpha...beta.unsaturated ketone by diamine(ether-phosphine)
ruthenium [II] complexes and lipse
-catalyzed kinetic resolution: a consecutive COPYRIGHT 2003 ACS Elsevier Science Ltd. 72375 RUTHENIUM
20 RUTHENIUMS
72375 RUTHENIUM
(RUTHENIUM OR RUTHENIUMS) (LIPASE OR LIPASES) Sermany Journa => s 12 and resol? 42577 RESOL? L3 20 L2 AND RESOL? ANSWER 1 OF 20 CAPLUS 39474 LIPASE 8867 LIPASES 40851 LIPASE LIPASES L3 ANSWER 1 OF 2 ACCESSION NUMBER: TITLE: CORPORATE SOURCE: -> d l3 ibib abs PUBLISHER: DOCUMENT TYPE: LANGUAGE: AB The RuCl2(SOURCE: Ľ

-> 8 13 and (alcohol or este?) 193815 ALCOHOL 135616 ALCOHOL 305770 ALCOHOL

(ALCOHOL OR ALCOHOLS)

ALCS 517213 ALC 171058 ALCS 605102 ALC

(ALC OR ALCS) 713687 ALCOHOL

(ALCOHOL OR ALC)

16 L3 AND (ALCOHOL OR ESTE?) 811667 ESTE?

d 1-16 ibib abs

7

Lindner, Ekkehard, Ghanem, Ashraf; Warad, Ismail; Elchele, Klaus; Mayor, Hermann A.; Schurig, Volker Institute of Inorganic Chemistry, University of Tubingen, Auf der Morgenstelle 18, Tubingen, 72076, Tetrahedron: Asymmetry (2003), 14(8), 1045-1053 CODEN: TASYE3; ISSN: 0957-4166 Elsevier Science Ltd. Asymmetric hydrogenation of an .alpha...beta.unsaturated ketone by diamine(ether-phosphine)
ruthanium [II] complexes and lipaso
catalyzed kinetic resolution: a consecutive ANSWER 1 OF 16 CAPLUS COPYRIGHT 2003 ACS Germany ACCESSION NUMBER: TITLE: CORPORATE SOURCE: AUTHOR(S):

English PUBLISHER: DOCUMENT TYPE: LANGUAGE: B

AB The Ruc12(.eta.1-Ph2CH2CH2CH3)2(diamine) complexes 211-215 have been prepd. in high yields from the reaction of equimolar amts. of prepd. in high yields from the reaction of equimolar amts. of recta.2-Ph2PCH2CH2CH2CH3)21 with various kinds of chelating diamines in-15 to form five-membered chelates with ruthanium. These novel ruthanium(II) complexes have been used as catalysts in the asym. Mydrogenation of the prochital ketone trans.4-phanyl-3-butene-2-one 3, using 2-propanol and different types of cocatalysts. Whereas complexes with achiral diamines afforded the racemic alcs., complexes with chiral diamines (R.R or S.) allowed the formation of the corresponding enantiomerically enriched secondary alc. (S or R) with ee values of 45%. In order to obtain the secondary alc. with ee of >99%, the kinetic reson. of enantiomerically enriched trans-4-phenyl-3-butene-2-ol 3 was performed in a consecutive approach using either the lipase-catalyzed enantioselective function of the alc. with sopropenyl acetate as the acyl donor in toluene or the enantioselective hydrolysis of the corresponding acetate in buffer. The detn. of the enantiomeric excess (ee) of the resulting enantiomerically enriched secondary alcs. was performed by gas chromatog, using heptakis(2,3-di-0-methyl-6-0-textbutyldimethylsilyl)-beta.-cyclodextrin as the chiral stationary phase.

2003:183189 CAPLUS Lipase/ruthenium-catalyzed dynamic kinetic resolution of tropic acid ethyl CAPLUS COPYRIGHT 2003 ACS L4 ANSWER 2 OF 16 ACCESSION NUMBER:

AUTHOR(S): CORPORATE SOURCE:

2003 (2003) Orleans, LA, United States, March 23-27, 2003 (2003) INOR-145. American Chemical Society: Washington, D. Atuu, Mary Rose; Hossain, M. Mahmun Department of Chemistry, University of Wisconsin-Wilwaukee, Milwaukee, M. 53211, USA Abstracts of Papers, 225th ACS National Meeting,

Conference; Meeting Abstract CODEN: 69DSA4

DOCUMENT TYPE:

SOURCE:

English in combination with ruthenlum Enzymic resoln. AB

catalyzed racemization of the primary alc. lead to the dynamic of 3-acetoxy-2-Ph tropic acid Et effer in a good yield and good enatiomeric excess A good result was obtained by using lipese PS, ruthenium 2 and isopropenyl acetate acyl donor 4 in toluene.

A key feature of this new method for the synthesis of optically active compds.

A key feature of this new methodol is the use of metal catalysis is described as a useful method for the synthesis of optically active compds.

A key feature of this new methodol is the use of metal catalysts for the in situ racemization of enzymically unreactive enantiomers in the enzymic resolm. of racemic substrates. So far, two combinations
Ilpasa-ruthenium and lipasa-palladium - have combinations
Ilpasa-ruthenium and lipasa-palladium - have to combination of been developed for the efficient dynamic kinetic resolm. of actades. The use of the asym. transformation of ketones, their enol actades, and ketoximes. In most cases, enzyme-metal combination actades, and ketoximes. In most cases, enzyme-metal combination catalysis has provided good yields and high optical purities. Coupled enzyme-metal catalysis is a new approach for the dynamic kinetic resolm. and asym. transformations and provides a useful remain them to conventional chem. Or enzymic methods.

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECRED COUNT: Pamies, Oscar; Baeckvall, Jan-E.
Department of Organic Chemistry, Arrhenius Laboratory,
Stockholm University, Stockholm, SE-10691, Swed.
Journal of Organic Chemistry (2002), 67(25), 9006-9010
CODEN: JOCEAH; ISSN: 0022-3263 Kim, Mahn-Joo; Ahn, Yangsoo; Park, Jaiwook Division of Molecular and Life Sciences, Department of Chemistry, National Research Laboratory of Chirocechnology, Pohang University of Science and Technology, Kyungbuk, 790-784, S. Korea Current Opinion in Biotechnology (2002), 13(6), English
OTHER SOURCE(S):

CASREACT 138:106546

AB Enzymic mesola. of .obta.-chloro alos. in combination
with ruthennium-catalyzed alo. isomerization led to a
successful dynamic kinetic resola. (conversion up to 97%). The efficiency of the DKR is dramatically reduced when
.beta.-bromo alos. are used. The presence of the bromo
substituent causes decompn. of the ruthennium catalysts, which
triggers the progressive deactivation of the enzyme. The synthetic
utility of this procedure has been illustrated by the practical synthesis
of different chiral epoxides.

43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT 138:186421
Dynamic kinetic resolutions and asymmetric transformations by enzymes coupled with metal Chemoenzymatic Dynamic Kinetic Resolution of .beta.-Halo Alcohols. An Efficient Route to Chiral Epoxides 138:271003 Efficient lipaso-catalyzed kinetic CODEN: CUOBE3; ISSN: 0958-1669 American Chemical Society Elsevier Science Ltd. Journal; General Review US COPYRIGHT 2003 ACS 2002:858574 CAPLUS COPYRIGHT 2003 ACS COPYRIGHT 2003 ACS 2002:880431 CAPLUS 138:106546 Z002:931631 CAPLUS English Journal CAPLUS L4 ANSWER 4 OF 16 CAPLUS ACCESSION NUMBER: 200 DOCUMENT NUMBER: 138 CAPLUS L4 ANSWER 5 OF 16 CACCESSION NUMBER: DOCUMENT NUMBER: TITLE: ANSWER 3 OF 16 L4 ANSWER 3 OF LO ACCESSION NUMBER:
DOCUMENT NUMBER:
TITLE: AUTHOR(S): CORPORATE SOURCE: AUTHOR(S): CORPORATE SOURCE: PUBLISHER: DOCUMENT TYPE: LANGUAGE: AB A review, v DOCUMENT TYPE: PUBLISHER SOURCE: SOURCE:

```
Another Companie Alleric resolu. of .beta.-hydroxy nitriles
has been carried out using Candida antarctica lipase B and a
ruthanium catalyst. The use of a hydrogen source to depress
ketone formation in the dynamic kinetic resolu. yields the
acetates in good yield and high enantioselectivity. It is shown that the
xuthanium catalyst and the enzyme can be recycled when used in
sep. reactions. Enantiomerically pure .beta.-hydroxy acid derivs. and
.gamma.-amino alose. were perpod. from the hydroxy nitriles and
acetates. The latter compds. were also used to establish the correct abs.
configuration of the hydroxy nitriles and acetates.

REFERENCE COUNT:
22 RECORD. ALL CITATIONS AVAILABLE FOR THIS
REFERENCE COUNT:
                                                                                         transformation to chiral beta. hydroxy acids and gamma.-amino alcohols

gamma.-amino alcohols

Pamies, Oscar; Backvall, Jan-E.

Stockholm University, Stockholm, 106 91, Swed.

Advanced Synthesis & Catalysis (2002), 344(9), 947-952

Wiley-VCH Verlag GmbH & Co. KGaA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The complete transformation of a racemic mixt. into a single enantiomer is more of the current challenging problems in asym, synthesis. As a new strategy for such transformation, we have studied the dynamic resolms. by enzyme-metal bicatalysis, in which enzyme acts as the enantioselective catalyst and metal as the racemization catalyst. In the metting, we wish to present some of the recent results from the studies on the dynamic resolm. of secondary alcs, including the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Department of Chemistry Division of Molecular and Life Sciences, Pohang University of Science and Technology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       synthesis and use of a more efficient racemization catalyst. The results from the dynamic resolns. of simple and functionalized substrates will be given with exptl. detail.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Choi, Jun Ho; Kim, Yu Hwan; Nam, Se Hyun; Shin, Seung
Tae; Kim, Mahn-Joo; Park, Jaiwook
National Research Laboratory of Chirotechnology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Department of Chemistry, Division of Molecular and Life Sciences, Pohang University of Science and Technology, Pohang, 790-784, S. Korea Abstracts of Papers, 224th ACS National Meeting, Boston, MA, United States, August 18-22, 2002 (2002), BIOT-273. American Chemical Society: Mashington, D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Kim, Mahn-Joo; Kim, Daeho; Choi, Yoon Kyung; Park,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Aminocyclopentadienyl ruthenium chloride:
Catalytic racemization and dynamic kinetic
resolution of alcohols at ambient
resolution and dynamic kinetic
resolution of .beta.-hydroxy nitriles.
Correction of absolute configuration and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Dynamic resolution by lipase-
ruthenium bicatalysis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conference; Meeting Abstract
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAPLUS COPYRIGHT 2003 ACS 2002:548947 CAPLUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAPLUS COPYRIGHT 2003 ACS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2002:614229 CAPLUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CODEN: 69CZPZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               temperature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          137:311016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Jaiwook
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              L4 ANSWER 6 OF 16
ACCESSION NUMBER:
TITLE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ANSWER 7 OF 16
                                                                                                                                                                       AUTHOR(S):
CORPORATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORPORATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORPORATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOCUMENT NUMBER:
                                                                                                                                                                                                                                                                                                                                                                               DOCUMENT TYPE:
LANGUAGE:
AB Chemoenzym
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOCUMENT TYPE:
LANGUAGE:
AB The comple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHOR (S):
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHOR (S):
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE:
```

(POSTECH), Pohang, 790-784, S. Korea Angewandte Chemie, International Edition (2002), 41(13), 2373-2376 CODEN: ACIEFS; ISSN: 1433-7851 Wiley-VCH Verlag GmbH SOURCE:

DOCUMENT TYPE: LANGUAGE:

PUBLISHER

English CASREACT 137:311016

Novel racemization catalyst is prepd., [RuCl(CO)2(.eta.5-cyclo-C5Ph4NHCHMe2)] (1), which improves dramatically the ruthentum-enzyme tandem dynamic kinetic resoln. (DKR) of secondary also. The DKR proceeds at room temp. with isopropenyl actate as an acyl donor and requires less lipase than with racemization catalysts described earlier. The structure of 1 was detd. by x-ray OTHER SOURCE(S) AB Novel race

THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT 56 diffraction. REFERENCE COUNT:

Enzymatic Kinetic Resolution and CAPLUS COPYRIGHT 2003 ACS CAPLUS 2002:64783 ANSWER 8 OF 16 L4 ANSWER 8 OF 16 ACCESSION NUMBER: DOCUMENT NUMBER: TITLE:

Chemoenzymatic Dynamic Kinetic Resolution of delta.-Hydroxy Esters. An Efficient Route to Chizal delta.-Lactones Pamés, Oscar; Bacckvall, Jan-E. Arrhenius Laboratory, Department of Organic Chemistry, Stockholm University, Stockholm, SE-106 91, Swed. Journal of Organic Chemistry (2002), 67(4), 1261-1265 American Chemical Society AUTHOR(S): CORPORATE SOURCE: SOURCE:

PUBLISHER: DOCUMENT TYPE:

CASREACT 136:263059

LANGUAGE: OTHER SOURCE(S): GI

8, 8 - 과) (0) (0) 栕 띺

Et) underwent kinetic resola. by lipsas-catalyzed transcentric resolar by lipsas-catalyzed transcentric resolar by lipsas-catalyzed transcentric tactor with 4-chlorophenyl acetate in toluene to give nonracemic .delta.acetoxy seters (R)-rCH(OAC)CH2CH2CO2CMe3 (R = Me, Et) and the (S)-.delta.hydroxy seters (R)-rCH(OAC)CH2CH2CO2CMe3 (R = Et) in 98-99% ee (B value up to 360). When the Shvo ruthenium isomerization catalyst I was added to the enzymic acylation conditions, the combination of the enzymic kinetic resola. with a ruthenium-catalyzed alc.
racemization led to an efficient dynamic kinetic resola. of the .delta.hydroxy seters to give (R)-RCH(OAC)CH2CH2CH2CH2CO2CMe3 in 87-89% yields and in ee up to 99%. The .delta.hydroxy seters were converted to .delta.lactones II, important building blocks in the synthesis of natural products and biol. active compds., by deacetylation with this in the products and biol. active compds, by deacetylation building high and the products and biol. active compds, by deacetylation with building high set toluene/methanol followed by acidification with hydrochloric acid. (S).5-(tert-butyldimethylsiloxy)heptanal (S).EtCH(OTBDMS)CH2CH2CH2CH0 (TBDMS * tert-butyldimethylsilyl), a key Racemic .delta.-hydroxy esters RCH(OH)CH2CH2CH2CO2CMe3 (R = Me, Et) underwent kinetic resoln. by 13 mm = __aralvesd æ

THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT Pamies, Oscar, Backvall, Jan-E. Department of Organic Chemistry, Arrhenius Laboratory, Stockholm University, Stockholm, 106 91, Swed. Advanced Synthesis & Catalysis (2001), 343(6+7), An efficient kinetic resolm. of racemic .beta.-hydroxy nitriles was performed via Candida enterctica lipses (N-435)-castalyzed transesterification. A variety of racemic alkyl, aryl, and aryloxymethyl substituted .beta.-hydroxy nitriles was efficiently transformed to the intermediate in the synthesis of widely used com. insecticide Spinosyn A, was prepd. from (5)-EtcH(OH)CH2CH2CH2CH3 by silylation of the secondary alc. followed by redn. of the ester with disobutylaluminum hydride. Efficient lipase-catalyzed kinetic ... resolution and dynamic kinetic resolution of .beta.-hydroxy nitriles. A route to useful precursors for .gamma.-amino CODEN: ASCAF7; ISSN: 1615-4150 Wiley-VCH Verlag GmbH COPYRIGHT 2003 ACS 2001:669911 CAPLUS 136:37080 English CAPLUS L4 ANSWER 9 OF 16 (A ACCESSION NUMBER: DOCUMENT NUMBER: TITLE: AUTHOR(S): CORPORATE SOURCE: REFERENCE COUNT: DOCUMENT TYPE: LANGUAGE: PUBLISHER SOURCE: æ

Jai Wook; Kim, Mahn-joo; Koh, Jeong Hwan; Jung, Samsung Fine Chemicals Co., Ltd., S. Korea; Pohang University of Science and Technology PCT Int. Appl., 19 pp.
CODEN: PIXXD2 Stereoselective method for preparing chiral esters from alkenyl esters via ruthenium catalyzed reduction and enzymic LUS COPYRIGHT 2003 ACS 2001:416874 CAPLUS resolution Park, Jai Hyun Min 135:19231 English CAPLUS COUNT: ANSWER 10 OF 16 PATENT ASSIGNEE(S): FAMILY ACC. NUM. CC PATENT INFORMATION: L4 ANSWER 10 OF ACCESSION NUMBER: DOCUMENT NUMBER: DOCUMENT TYPE: INVENTOR (S): LANGUAGE SOURCE:

SECE SECE GE, 83 48.59.99 48.59.99 20001018 유, 70, UZ, SE, S, T, E, BY, Ħ,F APPLICATION NO. 2000-KR1169 88, 89, S.F.S. ZW, A E B S 127.13. 127.13. Ş Ă, 20010607 DATE ¥ä SE, SE a sig KIND AZ, AE, AG, CU, HU, ID, LV, MA, SG, SI, GH, GM, GM, ES, ES, WO 2001040157 PATENT NO. RW:

MR, NE, SN, TD, TG EP 2000-971838 20001018 GB, GR, IT, LI, LU, NL, SE, MC, PT, CY, AL 20001018 20001201 A 19991202 W 20001018 KR 1999-54472 A 19 WO 2000-KR1169 W 20 CASREACT 135:19231; MARPAT 135:19231 JP 2001-541847 US 2000-726412 FR, Ä, CM, GA, GN, GW, M Al 20020911 CH, DE, DK, ES, F LT, LV, FI, RO, M T2 20030507 Al 20010809 B2 20021105 PRIORITY APPLN. INFO.: ដ R: AT, BE, JP 2003515336 US 2001012898 US 6475773 CG, (EP 1237837 OTHER SOURCE(S): GI

AB A method for prepg. optically pure chiral esters I (R1, R2 and R3 = independently (un) substituted alkyl, aryl or cycloalkyl group and R1 and R2, and R2 and R2 and form a cyclic ring; substituent may be halogen or cyano group) in high yield from alkenyl esters via ruthenium catalyzed redn./tacemization with successive enzymic reaols. is diclosed. For example, II was synthesized in 89% yield (98% enantiomeric excess) by mixing 1-phenylethenyl acetate with 2,6-dimethylheptan-4-ol, a ruthenium catalyst, and Novozym 435 followed by heating under Argon with subsequent chromaco. purifn. The chiral esters obtained can be used as synthetic intermediates for prepg. various chiral compds., chiral pharmaceutical drugs (e.g. Atorvastatin and Agenerase) or chiral agrochems. (e.g. L-Carnithe).

REFERENCE COUNT:

REFERENCE COUNT: HERE FORMAT

JUS COPYRIGHT 2003 ACS 2000:455856 CAPLUS CAPLUS 16

L4 ANSWER 11 OF ACCESSION NUMBER: DOCUMENT NUMBER:

Dynamic Kinetic Resolution of Allylic
Alcobols Mediated by Ruthenium- and
Lipase-Based Gatalysts
Lee, Donghyun; Huh, Eun A.; Kim, Mahn-Joo; Jung, Hyun
Min; Koh, Jeong Hwan; Park, Jaiwoon
Department of Chemistry Division of Molecular and Life
Science, Pobhang University of Science and Technology, AUTHOR (S):

CORPORATE SOURCE:

SOURCE:

and Life

Pohang Kyungbuk, 790-784, S. Korea Organic Letters (2000), 2(15), 2377-2379 CODEN: ORLEF7; ISSN: 1523-7060

American Chemical Society Journal

English CASREACT 133:222192 PUBLISHER: DOCUMENT TYPE: LANGUAGE

AB An enzyme-metal combo reaction has been developed for the dynamic kinetic reachs. A allylic actemic substrates are transformed by a lipse and a ruthanium complex in the presence of an acyl donor to allylic acetates of high optical purity in over 80% yield.

23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS SOURCE (S):

THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

2000:196518 CAPLUS 132:333983 Dynamic Kinetic Resolution of COPYRIGHT 2003 ACS CAPLUS L4 ANSWER 12 OF 16 CACCESSION NUMBER:
DOCUMENT NUMBER:
TITLE:

Department of Organic Chemistry Arrhenius Laboratory, Stockholm University, Stockholm, SE-106 91, Swed. Organic Letters (2000), 2(8), 1037-1040 CODER: ORLEFY; ISSN: 1523-7060 .alpha.-Hydroxy Acid Esters Huerta, Fernando F.; Laxmi, Y. R. Santosh; Baeckvall, American Chemical Society English CASREACT 132:333983 Journa CORPORATE SOURCE: OTHER SOURCE (S) DOCUMENT TYPE: LANGUAGE: AUTHOR (S): PUBLISHER: SOURCE:

C02R1

H

the .alpha.-hydroxy esters to give esters II in good 4-yelds and excellent ee's. Eg., Me .alpha.-hydroxy4-plates and 4-chlorophenyl acetate were dissolved in cyclohexane; argon was bubbled through the soln. and the soln. was injected by cantula into a Schlenk lisak with 2 molk catalyst I and 30 mg of Pseudomonas cepacia libase PS-C and heated for 48h and 60. degree. to give acetate II (R = 4-MeOC6H4; RI = Me) in 76% yield and in (R = Bu, Ph, 4-MeOC6H4, PhCH2CH2, 4-BrC6H4, cyclohexyl; Rl = Me, Et) in combination with ruthenium-catalyzed racemization with the dimeric ruthenium catalyst I led to dynamic resolm. of .alpha.-hydroxy esters RCH(OH)CO2R1 Enzymic resoln. of B

THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT 11 REFERENCE COUNT:

-catalyzed racemization without hydrogen mediator Koh, Jeong Hwan; Jung, Hyun Min; Kim, Mahn-Joo; Park, Enzymatic resolution of secondary alcohols coupled with ruthenium COPYRIGHT 2003 ACS 1999:523300 CAPLUS 131:286217 Jaiwook CAPLUS 16 L4 ANSWER 13 OF ACCESSION NUMBER: CORPORATE SOURCE: DOCUMENT NUMBER: AUTHOR (S):

Department of Chemistry and Center for Biofunctional Molecules, Pohang University of Science and Technology (POSTECH), Pohang, 790-784, S. Korea
Tetrahedron Letters (1999), 40(34), 6281-6284
CODEN: TELERY; ISSN: 0040-4039
Elsevier Science Ltd.

(.eta.5.Indenyl)RuCl(PPh3)2 was found to catalyze the racemization of secondary alcs. in the presence of triethylamine and oxygen LANGUAGE:

Journal

DOCUMENT TYPE:

PUBLISHER:

SOURCE:

Unlike previously reported metal-catalyzed racemization, ketones were not required as hydrogen mediators in our process. The Ru-catalyzed racemization was coupled with enzymic acetylation for the dynamic kinetic racemization was coupled with enzymic acetylation for the dynamic kinetic good yields (60-98% with high enantiosalectivities (82-99% ee). For example, chloro(.eta.5-indenyl)bis(triphenylphosphine)ruthenium

-catalyzed racemization of (.+-.)-1-phenylethanol coupled with lipses-catalyzed acetylation gave (R)-1-phenylethanol acetate in 85% yield (96% enantiomeric excess).
REFERENCE COUNT:
RECORD. ALL CITATIONS AVAILABLE FOR THIS REFORMAT

Ruthenium and Enzyme-Catalyzed Dynamic Kinetic Resolution of Secondary COPYRIGHT 2003 ACS 1999:107616 CAPLUS 130:266981 CAPLUS 14 ANSWER 14 OF 16 C ACCESSION NUMBER: DOCUMENT NUMBER: TITLE:

Persson, B. Anders, Larsson, Anna L. E.; Le Ray, Mikael; Baeckvall, Jan.E. Bepartments of Organic Chemistry, Uppsala University, Uppsala, S-751 21, Swed. Journal of the American Chemical Society (1999), 121(8), 1645-1650. Alcobols CORPORATE SOURCE: AUTHOR (S):

American Chemical Society SOURCE:

Journal English PUBLISHER: DOCUMENT TYPE: LANGUAGE: AB Enzymic re

AB Ensymic resolm. of secondary alcs. under substrate recemizing conditions was studied using an immobilized lipses recemizing conditions was studied using an immobilized lipses from Candida antarctica in the presence of a Ru catalyst. A specifically designed acyl donor, 4-chlorophenyl acetate, is compatible with both catalysts and resulted in an efficient dynamic faheur. Gresolm catalysts and resulted in an efficient solvents showed that nonpolar solvents gave the best results. With this process, racemic secondary alcs. were transformed to the corresponding enantiomerically pure acetates, making efficient use of all starting material. In most cases, the reaction proceeded with >99% ee and in good yield.

REFERENCE COUNT: PRECORD. ALL CITATIONS AVAILABLE FOR THIS

LUS COPYRIGHT 2003 ACS 1996:644675 CAPLUS CAPLUS

126:18612 Catalytic racemization of alcohols: L4 ANSWER 15 OF 16 CACCESSION NUMBER:
DOCUMENT NUMBER:
TITLE: AUTHOR(S):

applications to enzymic resolution reactions
Dinh, Phi M.; Howarth, Judith A.; Hudnott, Anna R.;
Milliams, Jonathan M. J.; Harris, William
Dep. Chemistry, Loughborough Univ., Loughborough,
Leicestershire, LELI 3TV, UK
CLarahedron Letters (1996), 37(42), 7623-7626
CODEN: TELEAY; ISSN: 0040-4039 CORPORATE SOURCE:

SOURCE:

Elsevier Journal PUBLISHER: DOCUMENT TYPE: LANGUAGE: AB The r

The racemization of enantiomerically enriched alcs. has been exchieved using a catalyst in the presence of a suitable ketone. Aluminum, rhodium or iridium catalysts have been successfully employed. This methodol. allows recycling of substrate for enzymic resolm. reactions

CAPLUS COPYRIGHT 2003 ACS 1991:471761 CAPLUS ANSWER 16 OF 16 L4 ANSWER 16 OF ACCESSION NUMBER: DOCUMENT NUMBER: TITLE:

An efficient preparation of the optically active gamma.hydroxy stannanes using lipase - gamma.hydroxystannanes using lipase litch, Toshiyuki; Ohta, Tadataka; Sano, Mitsue Fac. Educ., Okayama Univ., Okayama, 700, Japan Terrahedron Letters (1990), 31 (44), 6387-90 CODEN: TELEAY; ISSN: 0040-4039 AUTHOR(S): CORPORATE SOURCE: SOURCE:

English CASREACT 115:71761 DOCUMENT TYPE: LANGUAGE:

OTHER SOURCE(S):

A perfect optical resolm. of .gamma.-hydroxystannanes was demonstrated by the method of lipase-catalyzed enantioselective hydrolysis of the corresponding racemic acetates using lipase (Pesudomonas sp.).

FIL CASREACT ۵

TOTAL SESSION -11.72 SINCE FILE ENTRY 57.56 SINCE FILE DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) COST IN U.S. DOLLARS FULL ESTIMATED COST CA SUBSCRIBER PRICE

FILE 'CASREACT' ENTERED AT 07:45:27 ON 28 MAY 2003 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications.

FILE CONTENT:1907 - 25 May 2003 VOL 138 ISS 21

Some records from 1974 to 1991 are derived from the ZIC/VINITI data file and provided by InfoChem and some records are produced using some INPI data from the period prior to 1986.

This file contains CAS Registry Numbers for easy and accurate identification.

Crossover limits have been increased. See HELP RNCROSSOVER for details.

See HELP SLIMIT for the Structure search limits have been raised. higher limits

-> SET NOTICE DISPLAY 1

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND SET COMMAND COMPLETED

D ACC 115:71761 ALL ۵ S ESTIMATED COST FOR THIS REQUEST IS 6.09 U.S. DOLLARS YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y THE No.

ANSWER 1 CASREACT COPYRIGHT 2003 ACS AN 115:71761 CASREACT TI An efficient preparation of the optically active .gamma.-hydroxy stannanes using lipase-catalyzed hydrolysis
Itoh, Toshiyuki; Ohta, Tadataka; Sano, Miteue
Rac. Educ., Okayama Univ., Okayama, 700, Japan
Terrahedron Letters (1990), 31(44), 6387-90
CODEN: TELEAY; ISSN: 0040-4039

SSS

555**2**

English
2-9-8 (organometallic and Organometalloidal Compounds)
A perfect optical resoln. of .gamma.-hydroxystannanes was demonstrated by

the method of lipage-catalyzed enantioselective hydrolysis of the corresponding racemic acetates using lipage P(Pseudomonas sp.). stannane hydroxy resoln lipage catalysis hydrolysis Hydrolysis catalysts (lipage, of acetoxystannane, optical resoln. in relation to)

ST

Resolution

H

(lipase-catalyzed hydrolysis, of acetoxystannanes, .gamma.-hydroxystannanes from)

H

(lipase-catalyzed, of .gamma.-acetoxystannane, optical resoln. in Hydrolysis

L

relation to)
9001-62-1, Lipase
RL: CAT (Catalyst use); USES (Uses)
(Catalyst, for the kinetic optical resoln. of hydroxystannane esters, of Pseudomonas)

12137-42-7 II

RL: CAI (Catalyst use); USES (Uses)
(catalyst, for the oxidn. of THF deriv.)
(135218-82-5F .135218-83-6F 135218-84-7F 135218-86-8F 135218-86-9F
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, from kinetic resoln. of hydroxystannane esters with H

135218-75-6 135218-76-7 135218-77-8·135218-80-3 135218-81-4 135218-74-5 135218-79-0 lipase) 135218-73-4 135218-78-9

H

(kinetic optical resoln. of, by lipase hydrolysis) RL: PROC (Process)

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT 135218-87-0P H

(Reactant or reagent) (prepn. and reactions of, from kinetic resoln. of hydroxystannane esters with lipasse)

KL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) 135218-89-2P Ħ

prepn. and redn. of, with sodium borohydride) 135218-88-1P H

(Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)
(prepn. and ruthenium-catalyzed oxidn. of)
69830-92-8P 135270-53-0P 69830-92-8P

RL: SPN (Synthetic preparation); PREP (Preparation) H

RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with LDA, stannyllithium from)

RL: RCT (Reactant); RACT (Reactant or reagent) 4226-01-H

(reaction of, with oxoundecene)
42812-47-3, 1-Undecen-3-one
RL: RT (Reactant); ACT (Reactant ox reagent)
(reaction of, with tributylstannyllithium) Ţ

RX (1) OF 5

C 9001-62-1 Lipase B 1552R8-82-5 732-18-5 Water, 67-64-1 Me2CO enzymic, stereoselective; buffered at pH 7.2 RCT RGT PRO SOL RX (1)

Ö **^== [24** RX(2) OF 5

enzymic, stereoselective; buffered at pH 7.2 F 135218-75-6 C 9001-62-1 Lipase G 13518-84-7 7732-18-5 Water, 67-64-1 Me2CO PRO SOL NTE RX (2)

nmm> I... Ξ RX (3) OF 5

H 135218-87-0 I 135218-88-1 two steps RCT PRO NTE

RX (3)

t <=== 1... RX (4) OF 5

$$(CH2)^{7} \xrightarrow{\text{Me}} (CH2)^{7} \xrightarrow{\text{Me}} (4) \xrightarrow{\text{Me}} 3$$

RCT I 135218-88-1 RGT K 12137-42-7 Rhenium oxide peroxide (ReO2(O2)), (T-4)-, L 7790-28-8 NaIO4 PRO J 69830-52-8 SOL 75-05-8 McCN, 56-23-5 CCL4 RX (4)

-> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND SET COMMAND COMPLETED

TOTAL SESSION 67.46 TOTAL SESSION -12.34 SINCE FILE ENTRY 9.69 SINCE FILE ENTRY -0.62 => logoff
ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y) (N/HOLD:y
COST IN U.S. DOLLARS DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) CA SUBSCRIBER PRICE FULL ESTIMATED COST

STN INTERNATIONAL LOGOFF AT 07:51:03 ON 28 MAY 2003